

Appl. No. 10/630,453
Amdt. dated February 17, 2005
Reply to Office action of November 17, 2004

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-3 are withdrawn. Claims 4-8, and 10-20 remain. Claim 9 has been canceled. Claim 4 has been amended.

The inventor respectfully requests reconsideration of the application. Claims 1-8 and 10-20 remain in the case. Claim 9 has been canceled without prejudice. Amendments offered to the specification and claims merely correct typographical errors and do not introduce new matter.

Restriction under 35 U.S.C. § 121

The restriction of the present invention for purpose of examination to claims 4-20, agreed in a telephone conversation of the Examiner with the inventor's attorney, is confirmed. At the same time, the inventor requests rejoinder of claims 1-3 with claims 4-20 upon allowance of the latter, and reserves the right to file a division application.

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Claim objections and rejections under 35 U.S.C. § 112

Claims 4-20 have been rejected under the second paragraph of 35 USC 112, because "it cannot be understood what is meant by 0.01-5% by weight, as chlorine dioxide, of a source of chlorine dioxide. The rejection is respectfully traversed, as it appears to be a misunderstanding of both the present disclosure and the knowledge of those skilled in the art. The rejection is not well taken, and should be withdrawn.

The Examiner is respectfully referred to the specification at page 6, second paragraph, where a number of sources of chlorine dioxide are recited, including chlorine dioxide gas which is substantially all ClO_2 , solutions of chlorine dioxide whose concentration can readily be ascertained, various alkali metal chlorites, and combinations thereof. Since these sources differ in the weight amount of ClO_2 that can be obtained from a given weight of each, the phrase "as ClO_2 " provides a common basis for calculating and dosing the appropriate weight amount of each source of ClO_2 .

The Examiner has expressed concern that "not all of a chlorine dioxide source will immediately oxidize to chlorine dioxide in the absence of strongly irritating conditions." It is respectfully pointed out that the invention does not require

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"strongly irritating conditions" and expressly excludes such conditions from the claim drawn to a non-irritating composition consisting essentially of In this connection, the Examiner's attention is respectfully directed to the specification at page 6 bottom paragraph, where prior knowledge about the generation of ClO_2 from alkali metal chlorite is summarized:

As is known in the art, the generation of chlorine dioxide from alkali metal chlorite involves a valence change or oxidation of the formally 3-valent chlorine of chlorite ion to formally 4-valent chlorine of chlorine dioxide. In the absence of other oxidants, a chlorite ion can oxidize another chlorite ion to form chlorine dioxide, according to a reaction in which five chlorite ions yield four molecules of chlorine dioxide and a chloride ion. In the presence of added oxidants such as chlorine gas or hypochlorite ion, each chlorite ion is oxidized to a molecule of chlorine dioxide, so that chlorine and hypochlorite function to enhance the yield of chlorine dioxide obtainable from a metal chlorite.

Accordingly, the skilled formulator is taught to use one mole of alkali metal chlorite under non-irritating conditions, that is without added oxidizing agent, as source of 0.8 mole ClO_2 . He/she is further taught that added oxidizing agent such as chlorine gas or hypochlorite can be used to increase the yield of ClO_2 from 0.8 mole to one mole, and knows at least in principle how that can be done safely and without irritation by careful process control. Finally, the formulator is fully enabled to calculate whether or not the required time and

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effort is justified by the resulting maximum 25% increase in yield of ClO_2 .

Claims 9 and 20 have been objected to as of improper dependent form. It is pointed out that the limitation of claim 9 is already in independent claim 4. Accordingly, claim 9 has been canceled without prejudice.

The objection to claim 20 is that the claim required features of claim 1 not being met, i.e. "0.01 to 5% by weight, as chlorine dioxide, of a source of chlorine dioxide." It is respectfully pointed out that, as explained above, a source of chlorine dioxide can be calculated and dosed as chlorine dioxide while being something other than chlorine dioxide, and chemical analysis is able to differentiate chlorine dioxide from other sources.

Accordingly, claim 20 is entirely consistent as a claim dependent upon claim 4 and introducing a further limitation.

The objection to claim 20 should be withdrawn.

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Summary

As explained above, when read in light of the prior art, one with ordinary skill in the art is able to practice the invention. Accordingly, claims 4-8 and 10-20 are definite, and the specification and the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved.

In the absence of prior art applied to any of the claims, claims 4-8 and 10-20 are believed to be drawn to patentable subject matter and in order for prompt allowance. Moreover, claims 1-3 are believed to be in order for rejoinder and prompt allowance as well.

In view of the foregoing, prompt allowance of claims 1-8 and 10-20 is respectfully solicited.

If an extension of time for this paper is required, petition for extension is herewith made.

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Please charge any fees which might be due with respect to
Sections 1.16 and 1.17 to the Deposit Account of Lerner and
Greenberg, P.A., No. 12-1099.

Respectfully submitted,


For Applicant

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